AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend the claims as follows:

1-17 (Canceled)

18. (Currently Amended) An electric machine including a brushless DC motor comprising a stator provided with current-carrying coils and at least one partly magnetizable rotor which is provided with a plurality of permanent magnets in the circumferential direction, each embedded in a magnet retainer between the peripheral surface and shaft of the rotor such that in the radial direction, the permanent magnets are completely encircled by the peripheral surface of the rotor, wherein the permanent magnets are rectangular and are arranged with their narrow sides in the circumferential direction, and wherein the stator has a plurality of stator teeth whose end surfaces of their tooth shoe adjacent to the rotor are constructed as flat and tangential to the circumferential surface of the rotor, wherein at the magnet retainer, material recesses of the [[core]] rotor extend axially inside the rotor laterally in the circumferential direction of the rotor in such a manner that the permanent magnet protrudes into the material recesses at least with its axial edges adjacent to the peripheral surface of the rotor so that the permanent magnet is wider in the circumferential direction than its appurtenant pole shoe neck of the rotor and abuts against the pole shoe of the rotor with a partial width of its external surface and that the partial width corresponds to a tooth shoe width of a stator tooth in the circumferential direction.

19. (Currently Amended) The machine according to claim [[18]] 28, wherein the material recesses run parallel adjacent to the peripheral surface of the rotor with a wall thickness which is minimized such that the wall thickness can withstand centrifugal forces of the permanent magnet at the highest possible speed of the rotor.

20. (Currently Amended) The machine according to claim [[18]] 28, wherein the material recesses open perpendicularly on [[an]] the outer surface of the permanent magnet adjacent to the peripheral surface of the rotor with which the permanent magnet abuts against the pole shoe of the rotor.

21. (Previously Presented) The machine according to claim 20, wherein the material recesses have a rounded transition from a profile parallel to the peripheral surface of the rotor to a profile perpendicular to the outer surface of the permanent magnet.

22. (Currently Amended) The machine according to claim [[18]] 28, wherein lugs extended axially through the material recesses are formed on the magnet retainer for holding the permanent magnet.

23. (Currently Amended) The machine according to claim [[18]] 28, wherein each stator tooth carries turns of a single coil.

24. (Currently Amended) The machine according to claim [[18]] 28, wherein the electric machine is constructed with eight permanent magnets and twelve stator teeth.

25. (Currently Amended) The machine according to claim [[18]] 28, wherein the permanent magnets are magnetized parallel to their side surfaces facing the material recesses.

26. (Currently Amended) The machine according to claim [[18]] 28, wherein the permanent magnets contain at least one of ferrite, NdFeB and rare earths.

27. (Currently Amended) The machine according to claim [[18]] 28, wherein the permanent magnets are ~~the same length~~ at least as long in the axial direction ~~or longer than~~ as the rotor.

28. (New) An electric machine including a brushless DC motor comprising:

a stator provided with

current-carrying coils, and

a plurality of stator teeth, each having a tooth shoe with an end surface; and

at least one partly magnetizable rotor which is provided with a plurality of permanent magnets in a circumferential direction, each of the magnets being embedded in a magnet retainer between a peripheral surface of the rotor and a shaft of the rotor such that in a radial direction, the permanent magnets are completely encircled by the peripheral surface of the rotor,

wherein the permanent magnets are rectangular and are arranged with their narrow sides in the circumferential direction,

end surfaces of the tooth shoes are adjacent to the rotor and are constructed as flat and tangential to the peripheral surface of the rotor,

at the magnet retainer, material recesses in the rotor extend axially inside the rotor and laterally in the circumferential direction of the rotor in such a manner that the permanent magnet protrudes into the material recesses at least with its axial edges adjacent to the peripheral surface of the rotor so that the permanent magnet is wider in the circumferential direction than an appurtenant pole shoe neck of the rotor and abuts against a pole shoe of the rotor with a partial width of its outer surface, and

the partial width of the external surface of the permanent magnet is approximately equal to a tooth shoe width of one of the stator teeth in the circumferential direction.

29. (New) An electric machine including a brushless DC motor comprising:

a stator having

a plurality of current-carrying coils, and

a plurality of stator teeth, each having a tooth shoe with an end surface;

a rotor having a peripheral surface, the rotor having

a shaft about which the rotor rotates, the shaft extending in an axial direction,

a plurality of magnet retention areas arranged circumferentially in the rotor and positioned between the peripheral surface of the rotor and the shaft such that, in a radial direction, the magnet retention areas are completely encircled by the peripheral surface of the rotor,

two material recesses located circumferentially adjacent to each magnet retention area, a first one of the two material recesses being located on a first circumferential side of the magnet retention area and a second one of the two material recesses being located on a second circumferential side of the magnet retention area that is opposite to the first circumferential side; and

a plurality of permanent magnets, each of the magnets

is embedded in one of the magnet retention areas,

is rectangular in a cross section perpendicular to the shaft,

has a radially outward face, a radially inward face, and two end faces, and

has an axial edge where the radially outward face intersects each of the end faces, the axial edges extending in the axial direction,

wherein the end surfaces of the tooth shoes are adjacent to the rotor, are flat, and are tangential to the peripheral surface of the rotor, and

each material recess extends axially inside the rotor and laterally in a circumferential direction of the rotor such that the axial edges of the magnet protrude into the material recesses.

30. (New) The machine according to claim 29, wherein the rotor further comprises a plurality of pole shoe necks, each of the pole show necks

is adjacent to a corresponding one of the magnets, and

has a pole shoe that abuts the radially outward face of the corresponding magnet and is narrower in the circumferential direction than the radially outward face of the corresponding magnet.

31. (New) The machine according to claim 30, wherein a width of the pole shoe in the circumferential direction is approximately equal to the width of one of the tooth shoes in the circumferential direction.

32. (New) The machine according to claim 30, wherein the material recesses have a rounded transition from a profile parallel to the peripheral surface of the rotor to a profile perpendicular to the outer surface of the magnet.

33. (New) The machine according to claim 30, wherein lugs extending axially through the material recesses are formed on the rotor adjacent to the magnet retention areas to hold the magnet.

34. (New) The machine according to claim 30, wherein each stator tooth carries turns of a single coil.

35. (New) The machine according to claim 30, wherein the electric machine has eight of the permanent magnets and twelve of the stator teeth.

36. (New) The machine according to claim 30, wherein the permanent magnets are magnetized parallel to their end faces.

37. (New) The machine according to claim 30, wherein the permanent magnets are at least as long in the axial direction as the rotor.